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# State of Montana Public Employees Retirement Board

Department of Administration

PLEASE RETURN

- Public Employees' Retirement System
- Municipal Police Officers' Retirement System
- Game Wardens' Retirement System
- Sheriffs' Retirement System
- Judges' Retirement System
- Highway Patrolmen's Retirement System
- Firefighters' Unified Retirement System
- Volunteer Firefighters' Compensation Act

**Annual Financial Report**  
**Fiscal Year Ended June 30, 1985**

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TED SCHWINDEN, GOVERNOR

1712 9TH AVENUE



STATE OF MONTANA

(406) 444-3154

HELENA, MONTANA 59620

December 26, 1985

The Honorable Ted Schwinden  
Governor of Montana  
State Capitol  
Helena, Montana 59620

Dear Governor Schwinden:

The Public Employees' Retirement Board and the Department of Administration respectfully present the Third Annual Consolidated Report of the Public Employees' Retirement Division. This report covers the operations and the progress for fiscal year ended June 30, 1985.

During the 40th year of operation, the combined assets administered by the division have increased to over \$577 million. The social security contributions of \$105.4 million annually are deposited with the federal government on a bi-monthly basis. The authorized administrative staff of the division has increased from 21.25 FTE in the FY 84 to 22.25 FTE.

We are proud of the performance of the staff of the Public Employees' Retirement Division and we appreciate the cooperation that has been extended to the staff and board by the Governor, the Legislature and officials from all levels of government.

Respectfully submitted,

*Robert L. Batista*  
Robert L. Batista, President  
Public Employees' Retirement Board

*Lawrence P. Nachtsheim*  
Lawrence P. Nachtsheim, Administrator  
Public Employees' Retirement Division

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APPOINTIVE AND ADMINISTRATIVE OFFICIALS

PUBLIC EMPLOYEES' RETIREMENT BOARD

		<u>Term Expires</u>
E.J. McGreevey	Anaconda	1986
Robert L. Batista, President	Great Falls	1987
Franklin H. Steyaert, Vice President	Great Falls	1988
Patrick McKelvey	Helena	1988
Michael S. Muszkiewicz	Helena	1989
John L. Prebil	Helena	1990

Administrative Officials

Larry Nachtsheim	Administrator
David L. Senn	Operations Bureau Chief
Beverly Brinkley	Benefits Bureau Chief

Professional Consultants

Hendrickson and Associates Inc.	Actuarial Consultants Helena, Montana
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## INTRODUCTION

The Public Employees' Retirement Division (PERD) of the Department of Administration administers the activities of the eight retirement systems listed below:

Public Employees' Retirement System	(PERS)
Municipal Police Officers' Retirement System	(Police Officers)
Game Wardens' Retirement System	(Game Wardens)
Sheriffs' Retirement System	(Sheriffs)
Judges' Retirement System	(Judges)
Highway Patrolmen's Retirement System	(Highway Patrolmen)
Firefighters' Unified Retirement System	(Firefighters' Unified)
Volunteer Firefighters' Compensation Act	(Volunteer Firefighters)

The purpose of the retirement systems is to provide retirement benefits to eligible retired employees or their beneficiaries in the most efficient manner. In addition to administering the retirement systems, PERD also collects Social Security payments from state and local government entities and disburses these collections to the federal government on a semi-monthly basis.

The following schedule summarizes the enrollment of active and retired members in each retirement system.

<u>At June 30, 1985</u>		
<u>Retirement System</u>	<u>Active Members</u>	<u>Members Receiving Payments</u>
Public Employees'	27,160	8,045
Municipal Police Officers'	441	359
Game Wardens'	86	40
Sheriffs'	602	55
Judges'	48	21
Highway Patrolmen's	206	134
Firefighters' Unified	449	345
Volunteer Firefighters'		377
Total	<u>28,992</u>	<u>9,376</u>

During fiscal year 1985 there were 732 pension roll additions and 229 deletions for a net increase of 503. The number of pensioners receiving monthly checks rose from 8,873 on June 30, 1984 to 9,376 on June 30, 1985, an increase of 5.7%.

Total pensions paid by the Division in fiscal year 1985 amounted to \$39.7 million up from \$37.2 million in fiscal year 1984, an increase of 6.7%.

An actuarial valuation is performed biennially to determine the adequacy of each retirement system's funding. The results of the actuarial valuations as of July 1, 1984 are as follows:

<u>Retirement System</u>	<u>Adequacy of Funding</u> <u>7/1/84</u>
Public Employees'	Adequate
Municipal Police Officers'	Adequate
Game Wardens'	Adequate
Sheriffs'	Adequate
Judges'	Adequate
Highway Patrolmen's	Adequate
Firefighters' Unified	Adequate

The division is governed by a six-member Public Employees' Retirement Board whose members are appointed by the Governor to five-year terms. The Board has exclusive control over administering the funds of the eight retirement systems. Staffing and other administrative functions are the responsibility of the Department of Administration.

The Treasury Bureau of the Department of Administration is custodian of the retirement funds, subject to the retirement board's administrative controls. The Board of Investments invests system assets in the various securities allowed by law. The Department of Administration provides legal counsel for the Public Employees' Retirement Board.

The Public Employees' Retirement Division accounts for the collection and disbursement of Social Security payments for employees and employers in the Social Security Agency Fund. The Board of Investments invests Social Security collections as they are received. Social Security investment income was \$755,342 in fiscal year 1983-1984 and \$523,340 in fiscal year 1984-1985. The division uses this income to pay the cost of administering the eight retirement systems. At June 30, 1985 Social Security investments were \$13,855,067.

The Social Security investments are redeemed semi-monthly to disburse to the federal government the necessary payments for the Social Security contributions. The payments to the federal government are payable 15 days after the end of each semi-monthly reporting period.

The last audit of the Retirement Division was conducted on June 30, 1984. The financial statements of each retirement system were found to present fairly the financial position of each retirement system. Each system's financial statements were found to be in conformity with generally accepted accounting principles.



## FINANCIAL SECTION

BALANCE SHEET

STATEMENT OF REVENUES, EXPENSES AND CHANGES IN FUND BALANCE

STATEMENT OF CHANGES IN FINANCIAL POSITION

NOTES TO FINANCIAL STATEMENTS



PUBLIC EMPLOYEES' RETIREMENT DIVISION  
BALANCE SHEET  
JUNE 30, 1985

	<u>P.E.R.S.</u>	<u>POLICE OFFICERS</u>	<u>GAME WARDENS</u>	<u>SHERIFFS</u>
<u>ASSETS</u>				
Cash in Treasury	\$ 1,858,756	\$ 50,892	\$ 7,257	\$ 29,390
Accounts Receivable - Other	2,734,329	1,074		
Unamortized Deferred Gains & Losses	15,875,195	275,579	196,978	188,519
Accrued Employee Contributions Rec'ble	1,444,805	31,541	6,333	52,521
Accrued Employer Contributions Rec'ble	1,554,509	107,916	5,732	56,356
Accrued Investment Income Receivable	9,983,107	455,205	169,077	412,466
Accrued Fines & Forfeitures Rec'ble			4,330	
Accrued State Contributions Rec'ble		2,101,245		
Investments:				
Mortgages-at-Cost	64,901,240		28,824	
Securities-at-Cost	340,711,799	15,226,316	5,031,574	14,032,556
Common Stocks-at-Cost	55,768,439	997,770	696,726	1,297,317
Other Investments	359,626			
Inventory on Hand	5,660			
Equipment Less Acc Depreciation	64,902			
Total Assets	\$495,262,367	\$19,247,538	\$6,146,831	\$16,069,125
<u>LIABILITIES</u>				
Accounts Payable	\$ 111,277	\$	\$	\$
Accrued Refunds	370,576			7,343
Unamortized Mortgage Discount	269,346			
Deferred Revenue	394			
Net Assets Available for Benefits	<u>\$494,510,774</u>	<u>\$19,247,538</u>	<u>\$6,146,831</u>	<u>\$16,061,782</u>
<u>FUND BALANCE</u>				
Annuity Savings Reserve	\$138,471,375	\$ 3,504,292	\$1,289,955	\$ 3,977,505
Annuity Savings Interest Reserve	49,918,571	1,027,850	672,208	1,057,699
Pension Accumulation Reserve	303,399,026	14,715,396	4,184,668	11,026,578
Reserve for Administrative Expenses	2,721,802			
Total Fund Balance	<u>\$494,510,774</u>	<u>\$19,247,538</u>	<u>\$6,146,831</u>	<u>\$16,061,782</u>

The notes to the financial statements are an integral part of this statement.





PUBLIC EMPLOYEES' RETIREMENT DIVISION  
BALANCE SHEET  
JUNE 30, 1985

	<u>JUDGES</u>	<u>HIGHWAY PATROLMEN</u>	<u>FIREFIGHTERS UNIFIED</u>	<u>VOLUNTEER FIREFIGHTERS</u>
<u>ASSETS</u>				
Cash in Treasury	\$ 7,077	\$ 8,308	\$ 62,204	\$ 1,474
Accounts Receivable - Other	98,276			
Unamortized Deferred Gains & Losses	75,756	347,412	(202,829)	51,827
Accrued Employee Contributions Rec'ble	4,768	16,223	28,379	
Accrued Employer Contributions Rec'ble	4,640	31,670	85,362	
Accrued Investment Income Receivable	139,802	306,770	373,786	101,783
Accrued Fines & Forfeitures Rec'ble				
Accrued State Contributions Rec'ble			2,431,330	338,742
Investments:				
Mortgages-at-Cost	33,079			
Securities-at-Cost	5,505,017	11,280,542	13,553,412	3,803,089
Common Stocks-at-Cost	746,052	1,196,680	696,577	
Other Investments			207,457	
Total Assets	<u>\$6,614,467</u>	<u>\$13,187,605</u>	<u>\$17,235,678</u>	<u>\$4,296,915</u>
<u>LIABILITIES</u>				
Accrued Refunds	\$	\$ 1,288	\$	\$ 28
Accrued Benefits				
Unamortized Mortgage Discount				
Deferred Revenue			7	
Net Assets Available for Benefits	<u>\$6,614,467</u>	<u>\$13,186,317</u>	<u>\$17,235,671</u>	<u>\$4,296,887</u>
<u>FUND BALANCE</u>				
Annuity Savings Reserve	\$ 765,723	\$ 2,806,602	\$ 3,950,284	\$
Annuity Savings Interest Reserve	319,764	1,145,583	846,895	
Pension Accumulation Reserve	5,528,980	9,234,132	12,438,492	4,296,887
Reserve For Administrative Expenses				
Total Fund Balance	<u>\$6,614,467</u>	<u>\$13,186,317</u>	<u>\$17,235,671</u>	<u>\$4,296,887</u>

The notes to the financial statements are an integral part of this statement

PUBLIC EMPLOYEES' RETIREMENT DIVISION

SOCIAL SECURITY

BALANCE SHEET

JUNE 30, 1985

ASSETS

Cash	\$ 1,061,774.50
Investments	11,642,016.22
Accrued Investment Income Receivable	54,149.47
Accounts Receivable - Other	<u>1,097,126.70</u>
TOTAL ASSETS	<u>\$13,855,066.89</u>

LIABILITIES

Due Pers	\$ 2,721,802.08
Due Federal Government	<u>11,133,264.81</u>
TOTAL LIABILITIES	<u>\$13,855,066.89</u>

PUBLIC EMPLOYEES' RETIREMENT DIVISION  
STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN FUND BALANCE  
FISCAL YEARS ENDED JUNE 30, 1985 and JUNE 30, 1984

	<u>P.E.R.S.</u>		<u>POLICE OFFICERS</u>		<u>GAME WARDENS</u>		<u>SHERIFFS</u>	
	<u>1985</u>	<u>1984</u>	<u>1985</u>	<u>1984</u>	<u>1985</u>	<u>1984</u>	<u>1985</u>	<u>1984</u>
<u>REVENUES</u>								
Retirement Contributions								
Member	\$ 25,396,735	\$ 23,835,463	\$ 577,408	\$ 553,306	\$ 151,341	\$ 154,959	\$ 784,899	\$ 752,392
Employer	26,408,167	24,797,497	1,306,400	1,234,377	153,054	157,626	842,733	805,284
State			2,101,244	2,116,205				
Investment Income & Dividends	47,947,934	40,663,751	1,879,143	1,559,616	586,734	493,651	1,692,997	1,350,781
Fines & Forfeitures					260,860	272,841		
Court Fees								
Miscellaneous Revenues	327,319	566,645	14,499	16,159	2,715	2,962	11,249	12,400
Payback of Annuity Savings Int.	7,955	19,035			20			300
Total Revenues	<u>\$100,088,110</u>	<u>\$ 89,882,391</u>	<u>\$ 5,878,694</u>	<u>\$ 5,479,663</u>	<u>\$1,154,724</u>	<u>\$1,082,039</u>	<u>\$ 3,331,878</u>	<u>\$ 2,921,157</u>
<u>EXPENSES</u>								
Benefit Payments	\$ 31,237,495	\$ 29,134,512	\$ 3,151,287	\$ 2,926,085	\$ 301,159	\$ 298,787	\$ 242,054	\$ 222,818
Refund of Member Contributions	7,961,200	6,719,438	108,187	71,241	3,776	325	219,951	278,658
Refund of Employer Contributions	467,550	119,331						
Supplemental Group Insurance Pay								
Administrative Fee	516,161	572,754	14,494	16,159	2,715	2,962	11,249	12,400
Investment Expense	153,655	142,396	4,240	4,478	1,484	1,548	3,743	3,719
Total Expenses	<u>\$ 40,336,061</u>	<u>\$ 36,688,431</u>	<u>\$ 3,278,208</u>	<u>\$ 3,017,963</u>	<u>\$ 309,134</u>	<u>\$ 303,622</u>	<u>\$ 476,997</u>	<u>\$ 517,595</u>
Prior Year Adjustments	<u>\$ (122,372)</u>	<u>\$ 434,424</u>	<u>\$ (602,337)</u>	<u>\$ 79,040</u>	<u>\$ 969</u>	<u>\$ 1,763</u>	<u>\$ (11,372)</u>	<u>\$ 14,727</u>
Excess of Revenues over Expenses	\$ 59,629,677	\$ 53,628,384	\$ 1,998,149	\$ 2,540,740	\$ 846,559	\$ 780,180	\$ 2,843,509	\$ 2,418,289
Fund Balance Beginning of Year	<u>\$434,881,097</u>	<u>\$381,252,713</u>	<u>\$17,249,389</u>	<u>\$14,708,649</u>	<u>\$5,300,272</u>	<u>\$4,520,092</u>	<u>\$13,218,273</u>	<u>\$10,799,984</u>
Fund Balance at End of Year	<u>\$494,510,774</u>	<u>\$434,881,097</u>	<u>\$19,247,538</u>	<u>\$17,249,389</u>	<u>\$6,146,831</u>	<u>\$5,300,272</u>	<u>\$16,061,782</u>	<u>\$13,218,273</u>

The notes to the financial statements are an integral part of this statement.



PUBLIC EMPLOYEES' RETIREMENT DIVISION  
STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN FUND BALANCE  
FISCAL YEARS ENDED JUNE 30, 1985 and JUNE 30, 1984

	JUDGES		HIGHWAY PATROLMEN		FIREFIGHTERS UNIFIED		VOLUNTEER FIREFIGHTERS	
	<u>1985</u>	<u>1984</u>	<u>1985</u>	<u>1984</u>	<u>1985</u>	<u>1984</u>	<u>1985</u>	<u>1984</u>
<u>REVENUES</u>								
Retirement Contributions								
Member	\$ 119,603	\$ 109,392	\$ 385,702	\$ 376,444	\$ 520,534	\$ 511,079	\$	\$
Employer	117,331	113,332	857,477	826,266	1,549,402	1,490,980		
State					2,431,330	2,342,271	338,742	338,742
Investment Income & Dividends	638,411	523,528	1,281,538	1,088,483	1,637,611	1,368,471	422,733	459,592
Fines & Forfeitures								
Court Fees	608,812	567,151						
Miscellaneous Revenues	1,952	1,993	6,176	6,863	14,301	15,899	5,433	5,866
Payback of Annuity Savings Int.								300
Total Revenues	<u>\$1,486,109</u>	<u>\$1,315,396</u>	<u>\$ 2,530,893</u>	<u>\$ 2,298,056</u>	<u>\$ 6,153,178</u>	<u>\$ 5,728,700</u>	<u>\$ 766,908</u>	<u>\$ 804,200</u>
<u>EXPENSES</u>								
Benefit Payments	\$ 417,235	\$ 410,439	\$ 843,029	\$ 805,749	\$ 3,216,785	\$ 2,996,403	\$ 267,869	\$ 401,008
Refund of Member Contributions			1,911	11,525	16,098	48,592		
Refund of Employer Contributions				290				
Supplemental Group Insurance Pay							19,950	18,225
Administrative Fee	1,952	1,993	6,176	6,863	14,301	15,899	5,433	5,866
Investment Expense	1,601	1,638	3,258	3,354	3,092	2,889	975	1,073
Total Expenses	<u>\$ 420,788</u>	<u>\$ 414,070</u>	<u>\$ 854,781</u>	<u>\$ 827,781</u>	<u>\$ 3,250,276</u>	<u>\$ 3,063,783</u>	<u>\$ 294,227</u>	<u>\$ 426,172</u>
Prior Year Adjustments	<u>\$</u>	<u>\$</u>	<u>\$ 3,747</u>	<u>\$ 2,823</u>	<u>\$ (676,148)</u>	<u>\$ 21,245</u>	<u>\$ 691</u>	<u>\$ 368,817</u>
Excess of Revenues over Expenses	\$1,065,321	\$ 901,326	\$ 1,680,266	\$ 1,473,098	\$ 2,226,754	\$ 2,686,162	\$ 473,372	\$ 746,845
Fund Balance Beginning of Year	<u>\$5,549,146</u>	<u>\$4,647,820</u>	<u>\$11,506,051</u>	<u>\$10,032,953</u>	<u>\$15,008,917</u>	<u>\$12,322,755</u>	<u>\$ 3,823,515</u>	<u>\$ 3,076,670</u>
Fund Balance at End of Year	<u>\$6,614,467</u>	<u>\$5,549,146</u>	<u>\$13,186,317</u>	<u>\$11,506,051</u>	<u>\$17,235,671</u>	<u>\$15,008,917</u>	<u>\$ 4,296,887</u>	<u>\$ 3,823,515</u>

The notes to the financial statements are an integral part of this statement.



PUBLIC EMPLOYEES' RETIREMENT DIVISION  
STATEMENT OF CHANGES IN FINANCIAL POSITION  
FISCAL YEARS ENDED JUNE 30, 1985 and JUNE 30, 1984

	<u>P.E.R.S.</u>		<u>POLICE OFFICERS</u>		<u>GAME WARDENS</u>		<u>SHERIFFS</u>	
	<u>1985</u>	<u>1984</u>	<u>1985</u>	<u>1984</u>	<u>1985</u>	<u>1984</u>	<u>1985</u>	<u>1984</u>
<u>SOURCES OF WORKING CAPITAL</u>								
Excess of Revenues Over Expenses	\$59,629,677	\$53,628,384	\$1,998,149	\$2,540,740	\$846,559	\$780,180	\$2,843,509	\$2,418,289
Prior Year Adjustments		(65,276)						
Net Increase (Decr) in Working Capital	<u>\$59,629,677</u>	<u>\$53,563,108</u>	<u>\$1,998,149</u>	<u>\$2,540,740</u>	<u>\$846,559</u>	<u>\$780,180</u>	<u>\$2,843,509</u>	<u>\$2,418,289</u>
 <u>ELEMENTS OF NET INCREASE (DECREASE) IN WORKING CAPITAL</u>								
Cash	\$ 1,045,219	\$(1,683,591)	\$ (20,055)	\$ 26,257	\$ 4,515	\$(14,567)	\$ (573)	\$ 9,408
Accounts Receivable - Other	(227,695)	542,935	1,074		(24,931)	17,276		
Accrued Employee Contributions Rec'ble	157,776	95,333	(6,705)	(1,158)	601	354	6,209	5,736
Accrued Employer Contributions Rec'ble	150,201	103,766	(45,741)	36,850	(110)	362	6,723	4,547
Accrued State Contributions Receivable			(599,341)	179,188				
Accrued Investment Income Receivable	976,655	1,341,138	87,460	41,962	22,807	30,744	64,543	57,829
Investments	57,496,326	50,617,856	2,476,355	2,282,083	835,640	701,547	2,805,088	2,357,589
Unamortized Deferred Gains & Losses	(84,176)	2,664,564	105,102	(25,417)	8,037	44,464	(43,108)	(4,889)
Unamortized Mortgage Discount	13,917	75,112						
Accrued Expenses	67,295	(48,175)		975			4,627	(11,931)
Deferred Revenue	17	(411)						
Accounts Payable	<u>34,142</u>	<u>(145,419)</u>						
NET INCREASE (DECR) IN WORKING CAPITAL	<u>\$59,629,677</u>	<u>\$53,563,108</u>	<u>\$1,998,149</u>	<u>\$2,540,740</u>	<u>\$846,559</u>	<u>\$780,180</u>	<u>\$2,843,509</u>	<u>\$2,418,289</u>

The notes to the financial statements are an integral part of this statement.





PUBLIC EMPLOYEES' RETIREMENT DIVISION  
STATEMENT OF CHANGES IN FINANCIAL POSITION  
FISCAL YEARS ENDED JUNE 30, 1985 and JUNE 30, 1984

	JUDGES		HIGHWAY PATROLMEN		FIREFIGHTERS UNIFIED		VOLUNTEER FIREFIGHTERS	
	<u>1985</u>	<u>1984</u>	<u>1985</u>	<u>1984</u>	<u>1985</u>	<u>1984</u>	<u>1985</u>	<u>1984</u>
SOURCES OF WORKING CAPITAL								
Excess of Revenues Over Expenses	\$1,065,321	\$901,326	\$1,680,266	\$1,473,098	\$2,226,754	\$2,686,162	\$473,372	\$746,845
Net Increase (Decr) in Working Capital	<u>\$1,065,321</u>	<u>\$901,326</u>	<u>\$1,680,266</u>	<u>\$1,473,098</u>	<u>\$2,226,754</u>	<u>\$2,686,162</u>	<u>\$473,372</u>	<u>\$746,845</u>
ELEMENTS OF NET INCREASE (DECREASE) IN WORKING CAPITAL								
Cash	\$ (42,977)	\$ 6,036	\$ (16,943)	\$ (22,542)	\$ (14,991)	\$ (13,075)	\$ 932	\$ (28,159)
Accounts Receivable - Other	98,261	15						
Accrued Employee Contributions Rec'ble	518	102	2,335	1,004	(7,711)	1,093		
Accrued Employer Contributions Rec'ble	426	66	(262)	2,087	(19,322)	17,637		
Accrued State Contributions Receivable					(494,208)	493,724		338,742
Accrued Investment Income Receivable	24,429	16,062	29,815	36,380	84,670	87,044	14,396	87,387
Investments	982,240	859,793	1,649,578	1,398,658	2,816,250	2,076,223	469,612	336,922
Unamortized Deferred Gains & Losses	2,424	9,130	17,031	57,511	(138,438)	8,332	(11,540)	11,953
Unamortized Mortgage Discount								
Accrued Expenses		10,122	(1,288)		50	(50)		
Deferred Revenue					454	15,234	(28)	
NET INCREASE (DECR) IN WORKING CAPITAL	<u>\$1,065,321</u>	<u>\$901,326</u>	<u>\$1,680,266</u>	<u>\$1,473,098</u>	<u>\$2,226,754</u>	<u>\$2,686,162</u>	<u>\$473,372</u>	<u>\$746,845</u>

The notes to the financial statements are an integral part of this statement.



PUBLIC EMPLOYEES' RETIREMENT DIVISION

Notes to the Financial Statements

Fiscal Year Ended June 30, 1985

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICES

a. Basis of Accounting

The preceding financial statements were prepared from the accounting records of the Public Employees' Retirement Division. The Division utilizes the accrual basis of accounting. This basis records expenditures when incurred and revenue when earned.

b. Investments in Securities

Securities are stated at cost for investments in federal and state government securities and corporate securities, increased by the amount of unamortized premiums and purchased interest and reduced by the amount of unamortized bond discounts.

<u>Retirement System</u>	<u>Unamortized Premiums</u>	<u>Interest Purchased</u>	<u>Bond Discount</u>
Public Employees'	1,533,762	383,319	22,951,952
Municipal Police Officers'	65,891	17,371	628,139
Game Wardens'	7,725	1,283	302,329
Sheriffs'	37,345	20,460	359,539
Judges'	13,300	3,227	203,038
Highway Patrolmen's	4,595	8,869	548,075
Firefighters' Unified	150,401	18,617	242,213
Volunteer Firefighters'	2,583	3,147	176,602

At June 30, 1985 the market value of securities for each system were as follows:

Public Employees'	497,566,514
Municipal Police Officers'	16,833,929
Game Wardens'	5,892,043
Sheriffs'	16,243,973
Judges'	6,442,189
Highway Patrolmen's	12,616,138
Firefighters' Unified	14,922,209
Volunteer Firefighters'	3,811,490

## 2. ADMINISTRATIVE FEE

Each Retirement System's portion of the Administrative Fee is based on the total number of active and retired members of that system.

## 3. GAINS AND LOSSES ON BOND SWAPS

The deferral and amortization method of accounting is used for gains and losses on bond swaps. Under this method, gains and losses are netted against the investment account and amortized over the life of the bond acquired or sold, whichever is less.

## 4. STATE CONTRIBUTIONS

For the fiscal year ended June 30, 1985, the dollar amount for the state's contribution to the Municipal Police Officers' Retirement Fund was calculated on 14.04 percent of the annual compensation paid to all active members during the preceding year, as stated in 19-9-702, MCA.

For the fiscal year ended June 30, 1985, the dollar amount for the state's contribution to the Firefighters' Unified Retirement Fund was calculated at 18 percent of the annual compensation paid to all active members during the preceding year, as stated in 19-13-604, MCA.

Each year the Volunteer Firefighters' Fund receives 5 percent of the premium taxes collected by the State Auditor's Office.

5. OTHER INVESTMENTS

Other investments are being controlled by the cities which are member employers of the retirement system. Those investments are not under the control of the Board of Investments.

6. RESERVE FOR PAYMENT OF ADMINISTRATIVE EXPENSES

Under the authority of 19-1-602, MCA, the Division pays the cost of administering the various retirement systems from moneys earned on Social Security Agency Fund investments. The Social Security Fund reflects an accounts payable to the retirement system for investment earnings. These statements reflect an accounts receivable and reserve of \$2,721,802 for the balance remaining in the Agency Fund. Total Administrative Expenses for the Public Employees' Retirement Division for fiscal years 1985 and 1984 were \$712,187 and \$761,459 respectively.

7. SOCIAL SECURITY AGENCY FUND

The Public Employees' Retirement Division collects Social Security payments from state and local government entities. These Social Security contribution receipts are payable to the federal government on a semi-monthly basis.

8. VOLUNTEER FIREFIGHTERS' FUND

Effective July 1, 1983 the Division assumed total administrative responsibility for the Volunteer Firefighters' Compensation Act. Prior to that time, the Division administered only the pension plan for the Volunteer Firefighters.

#### 9. SUPPLEMENTAL PENSION BENEFITS

The Municipal Police Officers' Retirement System provides supplemental benefits to members who retired prior to July 1, 1975. These benefits are paid from the premium tax fund by the State Auditor's Office. Similarly, the Firefighters' Unified Retirement System provides supplemental benefits to members who retired prior to July 1, 1973. The benefits are also paid from the premium tax fund by the State Auditor's Office.

The annual supplemental benefits provided as of July 1, 1984 under the Municipal Police Officers' Retirement System is \$798,168. This amount represents 8.71% of the total payroll of the active members. The annual supplemental benefits provided under the Firefighters' Unified Retirement System is \$866,510, which represents 10.73% of the total payroll of the active members.

The liability for these supplemental benefits was not included in the actuarial valuations as of July 1, 1984 since the costs are funded from a source outside of the respective retirement funds.

#### 10. ACTUARIAL ACCRUED BENEFITS

Separate actuarial valuations have been conducted to determine the present values of the accrued benefits under each of the retirement systems administered by the Public Employees' Retirement Division. The present values were determined for accrued benefits based on current salaries as well as projected future salaries. Also, the present values were determined separately for vested and non-vested benefits.

The table on page 23 illustrates the present value of accrued benefits as of July 1, 1984:

PRESENT VALUE OF ACCRUED BENEFITS

	<u>Without Salary Projections</u>	<u>With Salary Projections</u>
<u>Public Employees' Retirement System</u>		
Vested Benefits	\$545,139,836	\$686,507,770
Non Vested Benefits	21,342,987	57,864,949
Total Benefits	<u>\$566,482,823</u>	<u>\$744,372,719</u>
<u>Municipal Police Officers' Retirement System</u>		
Vested Benefits	\$ 46,781,144	\$ 49,482,623
Non Vested Benefits	613,821	2,487,277
Total Benefits	<u>\$ 47,394,965</u>	<u>\$ 51,969,900</u>
<u>Game Wardens' Retirement System</u>		
Vested Benefits	\$ 6,309,849	\$ 6,828,316
Non Vested Benefits	505,522	2,157,896
Total Benefits	<u>\$ 6,815,371</u>	<u>\$ 8,986,212</u>
<u>Sheriffs' Retirement System</u>		
Vested Benefits	\$ 7,282,400	\$ 7,780,537
Non Vested Benefits	839,255	7,862,505
Total Benefits	<u>\$ 8,121,655</u>	<u>\$ 15,643,042</u>
<u>Judges' Retirement System</u>		
Vested Benefits	\$ 10,214,630	\$ 12,257,892
Non Vested Benefits	657,121	1,460,513
Total Benefits	<u>\$ 10,871,751</u>	<u>\$ 13,718,405</u>
<u>Highway Patrolmen's Retirement System</u>		
Vested Benefits	\$ 15,406,622	\$ 15,591,566
Non Vested Benefits	4,220,595	6,968,346
Total Benefits	<u>\$ 19,627,217</u>	<u>\$ 22,559,912</u>
<u>Firefighters' Unified Retirement System</u>		
Vested Benefits	\$ 51,303,290	\$ 61,801,249
Non Vested Benefits	1,491,264	5,808,481
Total Benefits	<u>\$ 52,794,554</u>	<u>\$ 67,609,730</u>

## 11. ABBREVIATIONS

The financial statements include acronyms abbreviating each retirement system. The abbreviations are explained below.

P.E.R.S.	Public Employees' Retirement System
Police Officers	Municipal Police Officers' Retirement System
Game Wardens	Game Wardens' Retirement System
Sheriffs	Sheriffs' Retirement System
Judges	Judges' Retirement System
Highway Patrolmen	Highway Patrolmen's Retirement System
Firefighters Unified	Firefighters' Unified Retirement System
Volunteer Firefighters	Volunteer Firefighters' Compensation Act



## STATISTICAL SECTION

### COMPARATIVE SUMMARY

#### MEMBERSHIP

#### RETIRED MEMBERS AND BENEFIT RECIPIENTS

#### CONTRIBUTION RATES

#### REVENUE BY SOURCE

#### EXPENSES BY TYPE

#### ADDITIONS TO NET ASSETS AVAILABLE FOR BENEFITS

#### COMPARATIVE SUMMARY OF NET ASSETS AVAILABLE FOR BENEFITS AND TOTAL ACTUARIAL PRESENT VALUE OF TOTAL BENEFITS

COMPARATIVE SUMMARY OF PENSION PAYMENTS

(By Fiscal Year)

	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
PERS	14,979,572	17,682,546	19,372,966	23,068,413	25,036,076	29,134,512	31,237,495
Police	2,021,331	2,160,407	2,300,869	2,459,857	2,743,215	2,926,085	3,151,287
Game Wardens	166,442	182,577	217,164	222,047	278,240	298,787	301,159
Sheriffs	133,780	165,797	154,129	184,406	204,439	222,818	242,054
Judges	147,141	211,947	219,596	233,736	329,149	410,439	417,235
Highway Patrol	428,334	480,722	592,498	714,465	753,153	805,749	843,029
Firefighters				2,545,689	2,747,860	2,996,403	3,216,785
Vol Firefighters						401,008	267,869
TOTAL	17,876,600	20,883,996	22,857,222	29,428,613	32,092,132	37,195,801	39,676,913

# COMPARATIVE SUMMARY OF MEMBERSHIP

(By Fiscal Year)

	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
PERS	39,123	39,449	38,851	35,336	35,559	36,170	36,875
Police	430	454	449	439	450	448	446
Game Wardens	93	92	91	91	98	88	87
Sheriffs	551	556	580	591	599	602	615
Judges	35	34	38	38	41	43	49
Highway Patrol	226	215	197	205	220	207	207
Firefighters				454	451	452	450
TOTAL	<u>40,458</u>	<u>40,800</u>	<u>40,206</u>	<u>37,154</u>	<u>37,418</u>	<u>38,010</u>	<u>38,729</u>

# COMPARATIVE SUMMARY OF RETIREES

(Fiscal Year '85)

	<u>Beginning Balance</u>	<u>Retirees Added</u>	<u>Retirees Deleted</u>	<u>Ending Balance</u>
PERS	7,587	666	(208)	8,045
Police	354	7	(2)	359
Game Wardens	37	3	(0)	40
Sheriffs	52	6	(3)	55
Judges	20	2	(1)	21
Highway Patrol	131	5	(2)	134
Firefighters	338	11	(4)	345
Vol. Firefighters	354	32	(9)	377
TOTAL	<u>8,873</u>	<u>732</u>	<u>(229)</u>	<u>9,376</u>

PUBLIC EMPLOYEES' RETIREMENT SYSTEM

MEMBERSHIP

<u>PERIOD ENDED</u>	<u>ACTIVE MEMBERS</u>	<u>INACTIVE VESTED MEMBERS</u>	<u>INACTIVE NON-VESTED</u>	<u>TOTAL</u>
JUNE 30, 1979	29,677	256	9,190	39,123
JUNE 30, 1980	29,109	312	10,078	39,499
JUNE 30, 1981	27,573	343	10,935	38,851
JUNE 30, 1982	26,061	397	8,878	35,336
JUNE 30, 1983	25,857	357	9,345	35,559
JUNE 30, 1984	26,139	387	9,644	36,170
JUNE 30, 1985	27,160	309	9,406	36,875

RETIRED MEMBERS AND BENEFIT RECIPIENTS

<u>PERIOD ENDED</u>	<u>RETIREMENT</u>	<u>DISABILITY</u>	<u>SURVIVORS</u>	<u>TOTAL</u>
JUNE 30, 1979	4,668	623	156	5,447
JUNE 30, 1980	5,051	628	158	5,837
JUNE 30, 1981	5,459	649	170	6,278
JUNE 30, 1982	5,913	647	173	6,733
JUNE 30, 1983	6,343	634	181	7,158
JUNE 30, 1984	6,750	644	193	7,587
JUNE 30, 1985	7,196	654	195	8,045

PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Participating Members by Government Unit

State	10,277
County	5,457
City	2,478
College	2,358
School Districts & Misc	<u>6,590</u>
 TOTAL	 <u>27,160</u>

PUBLIC EMPLOYEES' RETIREMENT SYSTEM

CONTRIBUTION RATES

<u>Fiscal Year</u>	<u>Employee</u>	<u>Employer</u>
1979-1981	6.00%	6.20%
1982-1983	6.00%	6.32%
1984-1985	6.00%	6.417%

COMPARATIVE SUMMARY OF REVENUE BY SOURCE AND EXPENSES BY TYPE

REVENUES BY SOURCE

<u>Fiscal Year</u>	<u>Member Contributions</u>	<u>Employer Contributions</u>	<u>Investment Income</u>	<u>Total</u>
1979	\$16,894,875	\$16,983,508	\$16,419,001	\$50,297,384
1980	18,067,795	17,986,908	19,356,770	55,411,473
1981	19,687,595	19,716,942	23,607,248	63,011,785
1982	21,192,098	21,793,019	31,650,996	74,636,113
1983	22,671,919	23,193,749	35,888,201	81,753,869
1984	23,835,463	24,816,532	41,230,396	89,882,391
1985	25,396,735	26,416,122	48,275,253	100,088,110

EXPENSES BY TYPE

<u>Fiscal Year</u>	<u>Benefits</u>	<u>Refunds</u>	<u>Administrative Expenses</u>	<u>Other*</u>	<u>Total</u>
1979	\$14,979,572	\$7,296,920	\$520,689	\$(6,759,653)	\$16,037,528
1980	17,682,546	6,360,685	583,444	(805,404)	23,821,271
1981	19,372,966	6,970,900	807,558	160,414	27,311,838
1982	23,068,413	8,295,763	563,065	(466,854)	31,460,387
1983	25,036,076	6,230,042	604,641	88,632	31,959,391
1984	29,134,512	6,838,769	715,150	(434,424)	36,254,007
1985	31,237,495	8,428,750	669,816	122,372	40,458,433

\*Includes Prior Year Adjustments, Transfers In, Transfers Out, and F.Y. 1979 has an adjustment to a full accrual accounting system.

PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Additions to Net Assets Available for Benefits

<u>Fiscal Year</u>	<u>Revenues</u>	<u>Expenses</u>	<u>Annual Additions</u>	<u>Net Assets Available</u>
1979	\$ 50,297,384	\$16,037,528	\$34,259,856	\$220,992,360
1980	55,411,473	23,821,271	31,590,202	252,582,562
1981	63,011,785	27,311,838	35,699,947	288,282,509
1982	74,636,113	31,460,387	43,175,726	331,458,235
1983	81,753,869	31,959,391	49,794,478	381,252,713
1984	89,882,391	36,254,007	53,628,384	434,881,097
1985	100,088,110	40,458,433	59,629,677	494,510,774

Comparative Summary of Net Assets Available for Benefits and

Total Actuarial Present Value of Total Benefits

(in millions of dollars)

<u>Fiscal Year</u>	<u>Net Assets Available</u>	<u>Actuarial Present Value of Benefits</u>	<u>Percentage</u>
1979	221.0	599.0	36.9
1980	252.6	741.7	34.1
1981	288.3	741.7	38.9
1982	331.5	932.1	35.6
1983	381.3	932.1	40.9
1984	434.9	1,098.0	39.6
1985	494.5	1,098.1	45.0

Looking at the amount of the actuarial present value of benefits can be misleading. Expressing net assets available for benefits as a percentage of the actuarial present value of benefits provides one indication of the extent to which a retirement system is funded. Analysis of this percentage over time indicates whether the system is becoming financially stronger or weaker, the greater this percentage, the stronger the system.

MUNICIPAL POLICE OFFICERS' RETIREMENT SYSTEM

MEMBERSHIP

<u>PERIOD ENDED</u>	<u>ACTIVE MEMBERS</u>	<u>INACTIVE VESTED MEMBERS</u>	<u>INACTIVE NON-VESTED</u>	<u>TOTAL</u>
JUNE 30, 1979	426	1	3	430
JUNE 30, 1980	450	1	3	454
JUNE 30, 1981	443	1	5	449
JUNE 30, 1982	434	0	5	439
JUNE 30, 1983	445	0	5	450
JUNE 30, 1984	443	0	5	448
JUNE 30, 1985	441	0	5	446

RETIRED MEMBERS AND BENEFIT RECIPIENTS

Period Ended June 30, 1979	308
Period Ended June 30, 1980	319
Period Ended June 30, 1981	327
Period Ended June 30, 1982	331
Period Ended June 30, 1983	343
Period Ended June 30, 1984	354
Period Ended June 30, 1985	359



MUNICIPAL POLICE OFFICERS' RETIREMENT SYSTEM

Participating Members by City

Anaconda	17
Billings	98
Bozeman	25
Butte	47
Baker	2
Glasgow	9
Glendive	12
Great Falls	66
Havre	15
Helena	34
Kalispell	21
Lewistown	14
Livingston	11
Miles City	15
Missoula	53
Plains	<u>2</u>
 TOTAL	 <u>441</u>

MUNICIPAL POLICE OFFICERS' RETIREMENT SYSTEM

CONTRIBUTION RATES

<u>Fiscal Year</u>	<u>Employee</u>	<u>Employer</u>
1979-1981	6.00%/7.50%	14.00%
1982-1985	6.00%/7.50%	14.04%

COMPARATIVE SUMMARY OF REVENUE BY SOURCE AND EXPENSES BY TYPE

REVENUES BY SOURCE

<u>Fiscal Year</u>	<u>Member Contributions</u>	<u>Employer Contributions</u>	<u>Investment Income</u>	<u>State Contributions</u>	<u>Total</u>
1979	\$357,223	\$1,008,085	\$ 408,390	\$1,279,286	\$3,052,984
1980	418,895	1,254,922	478,975	1,551,460	3,704,252
1981	443,312	1,284,954	646,487	1,679,071	4,053,824
1982	498,893	1,369,341	1,061,976	1,762,626	4,692,836
1983	525,904	1,283,056	1,306,008	1,987,188	5,102,156
1984	553,306	1,234,377	1,575,775	2,116,205	5,479,663
1985	577,408	1,306,400	1,893,642	2,101,244	5,878,694

EXPENSES BY TYPE

<u>Fiscal Year</u>	<u>Benefits</u>	<u>Refunds</u>	<u>Administrative Expenses</u>	<u>Other*</u>	<u>Total</u>
1979	\$2,021,331	\$44,760	\$ 715	\$(1,543,032)	\$ 523,774
1980	2,160,407	64,207	794	42,635	2,268,043
1981	2,300,869	77,823	2,223	(49,810)	2,331,105
1982	2,459,857	79,409	17,742	(8,814)	2,548,194
1983	2,743,215	14,819	15,676	(149,481)	2,624,229
1984	2,926,085	71,241	20,637	(79,040)	2,938,923
1985	3,151,287	108,187	18,734	602,337	3,880,545

\*Includes Prior Year Adjustments, Transfers In, Transfers Out, and F.Y. 1979 has an adjustment to a full accrual accounting system.

# MUNICIPAL POLICE OFFICERS' RETIREMENT SYSTEM

## Additions to Net Assets Available for Benefits

<u>Fiscal Year</u>	<u>Revenues</u>	<u>Expenses</u>	<u>Annual Additions</u>	<u>Net Assets Available</u>
1979	\$3,052,984	\$ 523,774	\$2,529,210	\$ 6,927,152
1980	3,704,252	2,268,043	1,436,209	8,363,361
1981	4,053,824	2,331,105	1,722,719	10,086,080
1982	4,692,836	2,548,194	2,144,642	12,230,722
1983	5,102,156	2,624,229	2,477,927	14,708,649
1984	5,479,663	2,938,923	2,540,740	17,249,389
1985	5,878,694	3,880,545	1,998,149	19,247,538

## Comparative Summary of Net Assets Available for Benefits and

### Total Actuarial Present Value of Total Benefits

(in millions of dollars)

<u>Fiscal Year</u>	<u>Net Assets Available</u>	<u>Actuarial Present Value of Benefits</u>	<u>Percentage</u>
1979	6.9	46.9	14.7
1980	8.4	54.6	15.4
1981	10.1	54.6	18.5
1982	12.2	66.2	18.4
1983	14.7	66.2	22.2
1984	17.2	71.3	24.1
1985	19.2	71.3	26.9

Looking at the amount of the actuarial present value of benefits can be misleading. Expressing net assets available for benefits as a percentage of the actuarial present value of benefits provides one indication of the extent to which a retirement system is funded. Analysis of this percentage over time indicates whether the system is becoming financially stronger or weaker, the greater this percentage, the stronger the system.

GAME WARDENS' RETIREMENT SYSTEM

MEMBERSHIP

<u>PERIOD ENDED</u>	<u>ACTIVE MEMBERS</u>	<u>INACTIVE VESTED MEMBERS</u>	<u>INACTIVE NON-VESTED</u>	<u>TOTAL</u>
JUNE 30, 1979	90	0	3	93
JUNE 30, 1980	89	0	3	92
JUNE 30, 1981	88	0	3	91
JUNE 30, 1982	90	0	1	91
JUNE 30, 1983	97	0	1	98
JUNE 30, 1984	87	0	1	88
JUNE 30, 1985	86	0	1	87

RETIRED MEMBERS AND BENEFIT RECIPIENTS

<u>PERIOD ENDED</u>	<u>RETIREMENT</u>	<u>DISABILITY</u>	<u>SURVIVORS</u>	<u>TOTAL</u>
JUNE 30, 1979	22	5	3	30
JUNE 30, 1980	21	5	4	30
JUNE 30, 1981	24	6	4	34
JUNE 30, 1982	24	6	4	34
JUNE 30, 1983	29	6	4	39
JUNE 30, 1984	27	6	4	37
JUNE 30, 1985	30	6	4	40

GAME WARDENS' RETIREMENT SYSTEM

CONTRIBUTION RATES

<u>Fiscal Year</u>	<u>Employee</u>	<u>Employer</u>
1979-1981	7.00%	7.00%
1982-1985	7.00%	7.15%

COMPARATIVE SUMMARY OF REVENUE BY SOURCE AND EXPENSES BY TYPE

REVENUES BY SOURCE

<u>Fiscal Year</u>	<u>Member Contributions</u>	<u>Employer Contributions</u>	<u>Investment Income</u>	<u>Fines</u>	<u>Total</u>
1979	\$ 97,340	\$157,155	\$177,246	\$ -0-	\$ 431,741
1980	104,642	171,400	204,748	165,307	646,097
1981	107,302	190,661	264,362	157,068	719,393
1982	122,325	123,305	334,662	194,425	774,717
1983	161,460	163,389	409,524	233,833	968,206
1984	154,959	157,626	496,613	272,841	1,082,039
1985	151,341	153,074	589,449	260,860	1,154,724

EXPENSES BY TYPE

<u>Fiscal Year</u>	<u>Benefits</u>	<u>Refunds</u>	<u>Administrative Expenses</u>	<u>Other*</u>	<u>Total</u>
1979	\$166,442	\$10,716	\$ 4,983	\$(71,897)	\$110,244
1980	182,577	11,568	4,661	-0-	198,806
1981	217,164	24,418	5,511	4,891	251,984
1982	222,047	4,920	4,363	125,777	357,107
1983	278,240	16	3,768	(90)	281,934
1984	298,787	325	4,510	(1,763)	301,859
1985	301,159	3,776	4,199	(969)	308,165

\*Includes Prior Year Adjustments, Transfers In, Transfers Out, and F.Y. 1979 has an adjustment to a full accrual accounting system.

GAME WARDENS' RETIREMENT SYSTEM

Additions to Net Assets Available for Benefits

<u>Fiscal Year</u>	<u>Revenues</u>	<u>Expenses</u>	<u>Annual Additions</u>	<u>Net Assets Available</u>
1979	\$ 431,741	\$110,244	\$321,497	\$2,501,510
1980	646,097	198,806	447,291	2,948,801
1981	719,393	251,984	467,409	3,416,210
1982	774,717	357,107	417,610	3,833,820
1983	968,206	281,934	686,272	4,520,092
1984	1,082,039	301,859	780,180	5,300,272
1985	1,154,724	308,165	846,559	6,146,831

Comparative Summary of Net Assets Available for Benefits and

Total Actuarial Present Value of Total Benefits

(in millions of dollars)

<u>Fiscal Year</u>	<u>Net Assets Available</u>	<u>Actuarial Present Value of Benefits</u>	<u>Percentage</u>
1979	2.5	9.0	27.8
1980	2.9	8.7	33.3
1981	3.4	8.7	39.1
1982	3.8	11.2	33.9
1983	4.5	11.2	40.2
1984	5.3	12.2	43.4
1985	6.1	12.2	50.0

Looking at the amount of the actuarial present value of benefits can be misleading. Expressing net assets available for benefits as a percentage of the actuarial present value of benefits provides one indication of the extent to which a retirement system is funded. Analysis of this percentage over time indicates whether the system is becoming financially stronger or weaker, the greater this percentage, the stronger the system.

SHERIFFS' RETIREMENT SYSTEM

MEMBERSHIP

<u>PERIOD ENDED</u>	<u>ACTIVE MEMBERS</u>	<u>INACTIVE VESTED MEMBERS</u>	<u>INACTIVE NON-VESTED</u>	<u>TOTAL</u>
JUNE 30, 1979	522	7	22	551
JUNE 30, 1980	528	7	21	556
JUNE 30, 1981	554	5	21	580
JUNE 30, 1982	575	3	13	591
JUNE 30, 1983	584	1	14	599
JUNE 30, 1984	588	1	13	602
JUNE 30, 1985	602	0	13	615

RETIRED MEMBERS AND BENEFIT RECIPIENTS

<u>PERIOD ENDED</u>	<u>RETIREMENT</u>	<u>DISABILITY</u>	<u>SURVIVORS</u>	<u>TOTAL</u>
JUNE 30, 1979	28	6	4	38
JUNE 30, 1980	28	8	5	41
JUNE 30, 1981	30	8	5	43
JUNE 30, 1982	31	9	6	46
JUNE 30, 1983	33	9	7	49
JUNE 30, 1984	33	12	7	52
JUNE 30, 1985	34	12	9	55

SHERIFFS' RETIREMENT SYSTEM

CONTRIBUTION RATES

<u>Fiscal Year</u>	<u>Employee</u>	<u>Employer</u>
1979-1981	7.00%	7.55%
1982-1985	7.00%	7.62%

COMPARATIVE SUMMARY OF REVENUE BY SOURCE AND EXPENSES BY TYPE

REVENUES BY SOURCE

<u>Fiscal Year</u>	<u>Member Contributions</u>	<u>Employer Contributions</u>	<u>Investment Income</u>	<u>Total</u>
1979	\$435,122	\$467,788	\$ 356,359	\$1,259,269
1980	449,728	455,580	448,345	1,353,653
1981	516,085	560,911	584,511	1,661,507
1982	620,032	668,628	818,235	2,106,895
1983	699,752	749,132	1,080,802	2,529,686
1984	752,392	805,584	1,363,181	2,921,157
1985	784,899	842,733	1,704,246	3,331,878

EXPENSES BY TYPE

<u>Fiscal Year</u>	<u>Benefits</u>	<u>Refunds</u>	<u>Administrative Expenses</u>	<u>Other*</u>	<u>Total</u>
1979	\$133,780	\$339,641	\$ 629	\$ (144,667)	\$329,383
1980	165,797	155,065	733	16,052	337,647
1981	154,129	168,935	1,864	64,006	388,934
1982	184,406	270,425	12,419	26,451	493,701
1983	204,439	136,442	11,957	6,794	359,632
1984	222,818	278,658	16,119	(14,727)	502,868
1985	242,054	219,951	14,992	11,372	488,369

\*Includes Prior Year Adjustments, Transfers In, Transfers Out, and F.Y. 1979 has an adjustment to a full accrual accounting system.



SHERIFFS' RETIREMENT SYSTEM

Additions to Net Assets Available for Benefits

<u>Fiscal Year</u>	<u>Revenues</u>	<u>Expenses</u>	<u>Annual Additions</u>	<u>Net Assets Available</u>
1979	\$1,259,269	\$329,383	\$ 929,886	\$ 4,728,157
1980	1,353,653	337,647	1,016,006	5,744,163
1981	1,661,507	388,934	1,272,573	7,016,736
1982	2,106,895	493,701	1,613,194	8,629,930
1983	2,529,686	359,632	2,170,054	10,799,984
1984	2,921,157	502,868	2,418,289	13,218,273
1985	3,331,878	488,369	2,843,509	16,061,782

Comparative Summary of Net Assets Available for Benefits and

Total Actuarial Present Value of Total Benefits

(in millions of dollars)

<u>Fiscal Year</u>	<u>Net Assets Available</u>	<u>Actuarial Present Value of Benefits</u>	<u>Percentage</u>
1979	4.7	13.5	34.8
1980	5.7	16.4	34.8
1981	7.0	16.4	42.7
1982	8.6	24.7	34.8
1983	10.8	24.7	43.7
1984	13.2	31.0	42.6
1985	16.1	31.0	51.9

Looking at the amount of the actuarial present value of benefits can be misleading. Expressing net assets available for benefits as a percentage of the actuarial present value of benefits provides one indication of the extent to which a retirement system is funded. Analysis of this percentage over time indicates whether the system is becoming financially stronger or weaker, the greater this percentage, the stronger the system.

JUDGES' RETIREMENT SYSTEM

MEMBERSHIP

<u>PERIOD ENDED</u>	<u>ACTIVE MEMBERS</u>	<u>INACTIVE VESTED MEMBERS</u>	<u>INACTIVE NON-VESTED</u>	<u>TOTAL</u>
JUNE 30, 1979	34	1	0	35
JUNE 30, 1980	33	1	0	34
JUNE 30, 1981	37	1	0	38
JUNE 30, 1982	37	1	0	38
JUNE 30, 1983	40	1	0	41
JUNE 30, 1984	42	1	0	43
JUNE 30, 1985	48	1	0	49

RETIRED MEMBERS AND BENEFIT RECIPIENTS

<u>PERIOD ENDED</u>	<u>RETIREMENT</u>	<u>DISABILITY</u>	<u>SURVIVORS</u>	<u>TOTAL</u>
JUNE 30, 1979	9	2	1	12
JUNE 30, 1980	10	3	1	14
JUNE 30, 1981	10	3	1	14
JUNE 30, 1982	10	3	1	14
JUNE 30, 1983	17	2	2	21
JUNE 30, 1984	17	2	1	20
JUNE 30, 1985	18	3	0	21

## JUDGES' RETIREMENT SYSTEM

### CONTRIBUTION RATES

<u>Fiscal Year</u>	<u>Employee</u>	<u>Employer</u>
1979-1983	6.00%	6.00%
1984-1985	6.00%/7.00%	6.00%

### COMPARATIVE SUMMARY OF REVENUE BY SOURCE AND EXPENSES BY TYPE

#### REVENUES BY SOURCE

<u>Fiscal Year</u>	<u>Member Contributions</u>	<u>Employer Contributions</u>	<u>Investment Income</u>	<u>Court Fees</u>	<u>Total</u>
1979	\$ 65,978	\$ 65,978	\$178,094	\$229,076	\$ 539,126
1980	73,222	73,222	207,433	243,740	597,617
1981	81,568	80,969	261,433	279,188	703,158
1982	91,783	91,783	354,097	305,844	843,507
1983	102,936	102,936	435,663	359,719	1,001,254
1984	109,392	113,333	525,520	567,151	1,315,396
1985	119,603	117,331	640,363	608,812	1,486,109

#### EXPENSES BY TYPE

<u>Fiscal Year</u>	<u>Benefits</u>	<u>Refunds</u>	<u>Administrative Expenses</u>	<u>Other*</u>	<u>Total</u>
1979	\$147,141	-0-	\$2,343	\$(49,983)	\$ 99,501
1980	211,947	-0-	2,366	3,687	218,000
1981	219,596	-0-	2,908	(700)	221,804
1982	233,736	-0-	3,677	600	238,013
1983	329,149	-0-	3,103	(70,548)	261,704
1984	410,439	-0-	3,631	-0-	414,070
1985	417,235	-0-	3,553	-0-	420,788

\*Includes Prior Year Adjustments, Transfers In, Transfers Out, and F.Y. 1979 has an adjustment to a full accrual accounting system.

JUDGES' RETIREMENT SYSTEM

Additions to Net Assets Available for Benefits

<u>Fiscal Year</u>	<u>Revenues</u>	<u>Expenses</u>	<u>Annual Additions</u>	<u>Net Assets Available</u>
1979	\$ 539,126	\$ 99,501	\$ 439,625	\$2,441,805
1980	597,617	218,000	379,617	2,821,422
1981	703,158	221,804	481,354	3,302,776
1982	843,507	238,013	605,494	3,908,270
1983	1,001,254	261,704	739,550	4,647,820
1984	1,315,396	414,070	901,326	5,549,146
1985	1,486,109	420,788	1,065,321	6,614,467

Comparative Summary of Net Assets Available for Benefits and

Total Actuarial Present Value of Total Benefits

(in millions of dollars)

<u>Fiscal Year</u>	<u>Net Assets Available</u>	<u>Actuarial Present Value of Benefits</u>	<u>Percentage</u>
1979	2.4	7.8	30.8
1980	2.8	10.0	28.0
1981	3.3	10.0	33.0
1982	3.9	13.7	28.5
1983	4.6	13.7	33.6
1984	5.5	19.2	28.6
1985	6.6	19.2	34.4

Looking at the amount of the actuarial present value of benefits can be misleading. Expressing net assets available for benefits as a percentage of the actuarial present value of benefits provides one indication of the extent to which a retirement system is funded. Analysis of this percentage over time indicates whether the system is becoming financially stronger or weaker, the greater this percentage, the stronger the system.

HIGHWAY PATROLMEN'S RETIREMENT SYSTEM

MEMBERSHIP

<u>PERIOD ENDED</u>	<u>ACTIVE MEMBERS</u>	<u>INACTIVE VESTED MEMBERS</u>	<u>INACTIVE NON-VESTED</u>	<u>TOTAL</u>
JUNE 30, 1979	224	1	1	226
JUNE 30, 1980	213	1	1	215
JUNE 30, 1981	195	1	1	197
JUNE 30, 1982	204	1	0	205
JUNE 30, 1983	219	0	1	220
JUNE 30, 1984	206	0	1	207
JUNE 30, 1985	206	0	1	207

RETIRED MEMBERS AND BENEFIT RECIPIENTS

<u>PERIOD ENDED</u>	<u>RETIREMENT</u>	<u>DISABILITY</u>	<u>SURVIVORS</u>	<u>TOTAL</u>
JUNE 30, 1979	76	5	15	96
JUNE 30, 1980	81	5	17	103
JUNE 30, 1981	92	6	23	121
JUNE 30, 1982	96	6	22	124
JUNE 30, 1983	99	6	21	126
JUNE 30, 1984	104	6	21	131
JUNE 30, 1985	107	6	21	134

## HIGHWAY PATROLMEN'S RETIREMENT SYSTEM

### CONTRIBUTION RATES

<u>Fiscal Year</u>	<u>Employee</u>	<u>Employer</u>
1979-1981	6.50%	16.00%
1982-1985	6.50%	16.57%

### COMPARATIVE SUMMARY OF REVENUE BY SOURCE AND EXPENSES BY TYPE

#### REVENUES BY SOURCE

<u>Fiscal Year</u>	<u>Member Contributions</u>	<u>Employer Contributions</u>	<u>Investment Income</u>	<u>Total</u>
1979	\$238,069	\$618,759	\$ 425,017	\$1,281,845
1980	249,834	587,375	503,074	1,340,283
1981	249,298	579,469	617,035	1,445,802
1982	296,117	672,554	763,587	1,732,258
1983	399,942	919,137	914,574	2,233,653
1984	376,444	826,266	1,095,346	2,298,056
1985	385,702	857,476	1,287,715	2,530,893

#### EXPENSES BY TYPE

<u>Fiscal Year</u>	<u>Benefits</u>	<u>Refunds</u>	<u>Administrative Expenses</u>	<u>Other*</u>	<u>Total</u>
1979	\$428,334	\$16,119	\$ 839	\$(133,591)	\$311,701
1980	480,722	12,873	901	1,937	496,433
1981	592,498	34,870	2,195	(1,840)	627,723
1982	714,465	7,671	8,865	(27,301)	703,700
1983	753,153	346	8,205	(1,701)	760,003
1984	805,749	11,815	10,217	(2,823)	824,958
1985	843,029	1,911	9,434	(3,747)	850,627

\*Includes Prior Year Adjustments, Transfers In, Transfers Out, and F.Y. 1979 has an adjustment to a full accrual accounting system.

HIGHWAY PATROLMEN'S RETIREMENT SYSTEM

Additions to Net Assets Available for Benefits

<u>Fiscal Year</u>	<u>Revenues</u>	<u>Expenses</u>	<u>Annual Additions</u>	<u>Net Assets Available</u>
1979	\$1,281,845	\$311,701	\$ 970,144	\$ 5,868,816
1980	1,340,283	496,433	843,850	6,712,666
1981	1,445,802	627,723	818,079	7,530,745
1982	1,732,258	703,700	1,028,558	8,559,303
1983	2,233,653	760,003	1,473,650	10,032,953
1984	2,298,056	824,958	1,473,098	11,506,051
1985	2,530,893	850,627	1,680,266	13,186,317

Comparative Summary of Net Assets Available for Benefits and

Total Actuarial Present Value of Total Benefits

(in millions of dollars)

<u>Fiscal Year</u>	<u>Net Assets Available</u>	<u>Actuarial Present Value of Benefits</u>	<u>Percentage</u>
1979	5.9	19.3	30.1
1980	6.7	19.9	33.7
1981	7.5	19.9	37.7
1982	8.6	24.1	35.7
1983	10.0	24.1	41.5
1984	11.5	26.7	43.1
1985	13.2	26.7	49.4

Looking at the amount of the actuarial present value of benefits can be misleading. Expressing net assets available for benefits as a percentage of the actuarial present value of benefits provides one indication of the extent to which a retirement system is funded. Analysis of this percentage over time indicates whether the system is becoming financially stronger or weaker, the greater this percentage, the stronger the system.

FIREFIGHTERS' UNIFIED RETIREMENT SYSTEM

MEMBERSHIP

<u>PERIOD ENDED</u>	<u>ACTIVE MEMBERS</u>	<u>INACTIVE VESTED MEMBERS</u>	<u>INACTIVE NON-VESTED</u>	<u>TOTAL</u>
JUNE 30, 1982	454	0	0	454
JUNE 30, 1983	451	0	0	451
JUNE 30, 1984	452	0	0	452
JUNE 30, 1985	449	0	1	450

RETIRED MEMBERS AND BENEFIT RECIPIENTS

Period Ended June 30, 1982	317
Period Ended June 30, 1983	324
Period Ended June 30, 1984	338
Period Ended June 30, 1985	345

(Firefighters' Unified Retirement System became effective July 1, 1981.)



FIREFIGHTERS' UNIFIED RETIREMENT SYSTEM

Participating Members by City

Anaconda	10
Billings	94
Bozeman	24
Butte	42
Glendive	25
Great Falls	72
Havre	16
Helena	29
Kalispell	21
Lewistown	29
Livingston	15
Miles City	19
Missoula	51
Red Lodge	<u>2</u>
TOTAL	<u>449</u>

FIREFIGHTERS' UNIFIED RETIREMENT SYSTEM

CONTRIBUTION RATES

<u>Fiscal Year</u>	<u>Employee</u>	<u>Employer</u>
1982	6.00%	12.00%
1983	6.00%	15.00%
1984	6.00%	18.00%
1985	6.00%	18.00%

COMPARATIVE SUMMARY OF REVENUE BY SOURCE AND EXPENSES BY TYPE

REVENUES BY SOURCE

<u>Fiscal Year</u>	<u>Member Contributions</u>	<u>Employer Contributions</u>	<u>Investment Income</u>	<u>State Contributions</u>	<u>Total</u>
1982	\$446,475	\$ 884,454	\$ 982,891	\$3,375,358	\$5,689,178
1983	470,055	1,169,642	1,075,488	1,987,917	4,703,102
1984	511,079	1,490,980	1,384,370	2,342,271	5,728,700
1985	520,534	1,549,402	1,651,912	2,431,330	6,153,178

EXPENSES BY TYPE

<u>Fiscal Year</u>	<u>Benefits</u>	<u>Refunds</u>	<u>Administrative Expenses</u>	<u>Other*</u>	<u>Total</u>
1982	\$2,545,689	\$23,115	\$16,331	\$ 4,497	\$2,589,632
1983	2,747,860	15,777	13,191	9,845	2,786,673
1984	2,996,403	48,592	18,788	(21,245)	3,042,538
1985	3,216,785	16,098	17,393	676,148	3,926,424

\*Includes Prior Year Adjustments, Transfers In, Transfers Out.

(Firefighters' Unified Retirement System became effective July 1, 1981.)

FIREFIGHTERS' UNIFIED RETIREMENT SYSTEM

Additions to Net Assets Available for Benefits

<u>Fiscal Year</u>	<u>Revenues</u>	<u>Expenses</u>	<u>Annual Additions</u>	<u>Net Assets Available</u>
1982	\$5,689,178	\$2,589,632	\$3,099,546	\$10,406,326
1983	4,703,102	2,786,673	1,916,429	12,322,755
1984	5,728,700	3,042,538	2,686,162	15,008,917
1985	6,153,178	3,926,424	2,226,754	17,235,671

Comparative Summary of Net Assets Available for Benefits and

Total Actuarial Present Value of Total Benefits

(in millions of dollars)

<u>Fiscal Year</u>	<u>Net Assets Available</u>	<u>Actuarial Present Value of Benefits</u>	<u>Percentage</u>
1982	10.4	78.9	13.2
1983	12.3	78.9	15.6
1984	15.0	87.0	17.2
1985	17.2	87.0	19.8

Looking at the amount of the actuarial present value of benefits can be misleading. Expressing net assets available for benefits as a percentage of the actuarial present value of benefits provides one indication of the extent to which a retirement system is funded. Analysis of this percentage over time indicates whether the system is becoming financially stronger or weaker, the greater this percentage, the stronger the system.

VOLUNTEER FIREFIGHTERS' RETIREMENT SYSTEM

RETIRED MEMBERS AND BENEFIT RECIPIENTS

<u>PERIOD ENDED</u>	<u>RETIREMENT</u>	<u>SURVIVORS</u>	<u>TOTAL</u>
JUNE 30, 1979	218	4	222
JUNE 30, 1980	231	3	234
JUNE 30, 1981	244	1	245
JUNE 30, 1982	284	2	286
JUNE 30, 1983	312	2	314
JUNE 30, 1984	352	2	354
JUNE 30, 1985	373	4	377

(P.E.R.D. began administering the Volunteer Firemens' Compensation Act, July 1, 1983)

VOLUNTEER FIREFIGHTERS' RETIREMENT SYSTEM

COMPARATIVE SUMMARY OF REVENUE BY SOURCE AND EXPENSES BY TYPE

REVENUES BY SOURCE

<u>Fiscal Year</u>	<u>Investment Income</u>	<u>State Contributions</u>	<u>Total</u>
1984	\$465,458	\$338,742	\$804,200
1985	428,166	338,742	766,908

EXPENSES BY TYPE

<u>Fiscal Year</u>	<u>Benefits</u>	<u>Insurance Payments</u>	<u>Administrative Expenses</u>	<u>Other*</u>	<u>Total</u>
1984	\$401,008	\$18,225	\$6,939	\$(368,817)	\$ 57,335
1985	267,869	19,950	6,408	(691)	293,536

\*Includes Prior Year Adjustment to a full accrual system.

(PERD Began administering the Volunteer Firemens' Compensation Act, July 1, 1983.)

VOLUNTEER FIREFIGHTERS' RETIREMENT SYSTEM

Additions to Net Assets Available for Benefits

<u>Fiscal Year</u>	<u>Revenues</u>	<u>Expenses</u>	<u>Annual Additions</u>	<u>Net Assets Available</u>
1984	\$804,200	\$ 57,335	\$746,845	\$3,823,515
1985	766,908	293,536	473,372	4,296,887

## ACTUARIAL SECTION

FUNDING METHOD

ACTUARIAL ASSUMPTIONS

ANALYSIS OF VALUATION

## INTRODUCTION

An actuarial valuation for each of the retirement systems administered by the Public Employees' Retirement Division of the State of Montana has been completed as of July 1, 1984. This valuation was authorized by the Public Employees' Retirement Board under Title 19 M.C.A. The purpose of the valuation was to determine the financial position of each fund, the normal cost, and the unfunded accrued liability based upon present and prospective assets and liabilities of the fund as of July 1, 1984.

## Funding Method

The method of funding employed by each retirement system is commonly referred to as the entry age normal cost method. This method established a normal cost of each fund as well as an unfunded accrued liability. The normal cost is the level percentage of total salaries required to fund the benefits, assuming this percentage has been contributed since each member's entry into the fund.

The unfunded accrued liability represents the excess of the present value of total liabilities over the present assets of the fund and the present value of expected future contributions for the normal cost.

In order to maintain a fund on an actuarially sound basis, the rate of contribution should be such as to meet the normal cost in addition to making progress towards the amortization of the unfunded liability. The systems' actuary determined all of the retirement systems are funded on an actuarially sound basis.

The following schedule reports the amount of unfunded liability at June 30, 1984, for each retirement system:



	<u>Unfunded Liability at June 30, 1984</u>
Public Employees'	\$281,932,440
Municipal Police Officers'	32,492,453
Game Wardens'	3,475,610
Sheriffs'	1,415,825
Judges'	6,366,475
Highway Patrolmen's	10,781,410
Firefighters' Unified	46,882,278

#### ACTUARIAL ASSUMPTIONS

The actuarial valuation as of July 1, 1984, has changed certain actuarial assumptions for each retirement system. The changes have a net result of lowering the funding requirement for each retirement system. The changes in assumptions affect each retirement system administered by the Division except as noted below:

1. The mortality rates were set back one year to reflect the increase in life expectancies.
2. The withdrawal rates were lowered to adjust for the decreased terminations experienced by the systems. (This change applies to all retirement systems except for the Judges' Retirement System.)
3. The assumed investment return for future years was increased from 7 to 8 percent. This change was made to reflect the favorable investment experience of the systems and to anticipate the average expected investment return during the funding period for benefits to current members.
4. The underlying cost of living assumption was increased from 5.5 percent to 6.5 percent. This adjustment was made to anticipate future salary increases based upon economic projections and the historic relationship between investment return and cost-of-living increases.

## ANALYSIS OF VALUATION

### 1. PUBLIC EMPLOYEES' RETIREMENT SYSTEM

The actuarial valuation as of July 1, 1984 has determined that the percentage of each member's salary required to fund the benefits as they accrue in the future is 10.052%. The regular contribution rate of 12.417% allows 2.365% to be applied to the amortization of the unfunded liability. The valuation determined that 2.365% is sufficient to amortize the unfunded liability over a period of 36.58 years.

The period over which the regular contribution rate will amortize the unfunded liability has decreased from 42.47 years in 1982 to 36.58 years in 1984.

The lower mortality and withdrawal assumptions increased anticipated benefit payments and, therefore, increased the cost of the system. This increase was more than offset by the cost decrease resulting from the change in the post-retirement investment return assumption. The net effect of the pre-retirement investment and cost-of-living assumption changes was negligible. The result was a decrease of six years in the amortization period.

The total payroll is \$416,296,287 which represents a 10.4% increase during the biennium. The number of members receiving benefits has increased to 7,568. The total annual benefits are \$29,014,273 which represents an increase of 25.6% during the biennium. The assets of the system have increased 31.7% during the biennium to a total value of \$435,055,310.

The regular contribution rates to the Public Employees' Retirement

System is 12.417% of each active member's salary. This rate is comprised of 6.417% from the employer and 6% from each member.

The Public Employees' Retirement System is funded on an actuarially sound basis.

## 2. MUNICIPAL POLICE OFFICERS' RETIREMENT SYSTEM

The actuarial valuation as of July 1, 1984 has determined that the percentage of each police officer's salary required to fund the benefits as they accrue in the future is 22.850%. The applicable funding rate of 35.412% allows 12.562% of salary to be applied to the amortization of the unfunded liability. The valuation determined that 12.562% is sufficient to amortize the unfunded liability over a period of 35.92 years.

The period over which the applicable funding rate will amortize the unfunded liability has decreased from 43.55 years in 1982 to 35.92 years in 1984. This decrease in the amortization period is largely attributable to a change in the actuarial assumptions.

The lower mortality and withdrawal assumptions increased anticipated benefit payments and, therefore, increased the cost of the system. This increase was more than offset by the cost decrease resulting from the change in the post-retirement investment return assumption. The net effect of the pre-retirement investment and cost-of-living assumption changes was negligible. The result was a decrease of over seven years in the required amortization period.

The number of active members increased from 434 in 1982 to 435 in 1984, and the payroll increased from \$7,851,812 in 1982 to \$9,166,219 in 1984. This represents a 16.7% increase in the payroll. Annual benefits increased 20.8% with 319 members receiving annual payments of \$2,471,054

in 1982 and 355 members receiving annual payments of \$2,984,616 in 1984. During this period, assets grew 41.0% from \$12,236,904 to \$17,249,389.

The regular contribution rate for funding the Municipal Police Officers' Retirement System is 34.08% which is comprised of a contribution of 14.04% of the member's salary from each city and state, and the member's contribution of 6% of salary.

The total funding rates fairly represent the long-term financing available to the system. This approach is consistent with the long-term liabilities projected in the actuarial valuation. The Municipal Police Officers' Retirement System is funded on an actuarially sound basis.

### 3. GAME WARDENS' RETIREMENT SYSTEM

The actuarial valuation as of July 1, 1984 has determined that the percentage of each game warden's salary required to fund the benefits as they accrue in the future is 15.33%. The regular contribution rate of 27.29% allows 11.96% of salary to be applied to the amortization of the unfunded liability. The valuation determined that 11.96% is sufficient to amortize the unfunded liability over a period of 15.57 years.

The period over which the contribution rate of 27.29% will amortize the unfunded liability has decreased from 38.41 years in 1982 to 15.57 years in 1984. This decrease in the amortization period is largely attributable to a change in the actuarial assumptions. A small portion of the decrease resulted from a favorable experience of the system.

The lower mortality and withdrawal assumptions increased anticipated benefit payments and, therefore, increased the cost of the system. This increase was more than offset by the cost decrease resulting from the change in the post-retirement investment return assumption. The net

effect of the pre-retirement investment and cost-of-living assumption change was negligible. The result was a decrease of approximately 20 years in the required amortization period.

The number of active members declined from 90 in 1982 to 85 in 1984, but the payroll increased from \$1,834,071 in 1982 to \$2,077,172 in 1984. This represented a 13.3% increase in the payroll. Annual benefits increased 30.6% with 35 members receiving annual payments of \$220,188 in 1982 and 37 members receiving annual payments of \$287,508 in 1984. During this period, assets grew 38.3% from \$3,833,820 to \$5,300,272.

The regular contribution rate for funding the Game Wardens' Retirement System is 27.29% which is comprised of a state's contribution of 7.15% of the member's salary and the member's contribution of 7% of salary. In addition, the balance of fines and forfeitures is contributed to the system. This amount represents approximately 13.14% of salary. The Game Wardens' Retirement System is funded on an actuarially sound basis.

#### 4. SHERIFFS' RETIREMENT SYSTEM

The actuarial valuation as of July 1, 1984 has determined that the percentage of each sheriff's salary required to fund the benefits as they accrue in the future is 13.31%. The regular contribution rate of 14.62% allows 1.31% of salary to be applied to the amortization of the unfunded liability. The valuation determined that 1.31% is sufficient to amortize the unfunded liability over a period of 10.98 years.

The period over which the contribution rate of 14.62% will amortize the unfunded liability has decreased from 20.38 years in 1982 to 10.98 years in 1984. This decrease in the amortization period has resulted from a change in the actuarial assumptions.

The membership decreased from 548 in 1982 to 537 in 1984, but the payroll increased from \$9,524,960 to \$10,593,975. This represented an 11.2% increase in the payroll. The number of members receiving benefits increased from 46 to 52 with benefit payments increasing from \$191,612 to \$228,540. During this period, the assets increased 52.9% to a total of \$13,230,343.

The regular contribution rate for funding the Sheriffs' Retirement System is 14.62% of each active member's salary. This rate is comprised of 7.62% from the county and 7.0% from the member. The Sheriffs' Retirement System is funded on an actuarially sound basis.

#### 5. JUDGES' RETIREMENT SYSTEM

The actuarial valuation as of July 1, 1984 has determined that the percentage of each judge's salary required to fund the benefits as they accrue in the future is 38.73%. An additional percentage of 10.79% is required to amortize the unfunded past service liability over a period of 40 years. The total recommended contribution rate is 49.52%.

The recommended rate of 49.52% represents an increase of 4.18% over the 1982 recommended rate of 45.34%. This rate increase was attributable solely to a change in the actuarial assumptions.

The mortality adjustment created a slight increase in cost to the system. The most significant cost increase was created by the cost-of-living assumption change. Because the retirement benefit is increased in direct proportion to salary increases given to active judges, the cost-of-living change significantly increased the projected liability of the system. This increase was tempered by the offsetting increase in the assumed investment return. The net effect was a 4.18%

additional cost to the system as a percentage of salary.

The active membership increased from 36 in 1982 to 41 in 1984. The payroll increased from \$1,525,150 in 1982 to \$1,927,961 in 1984 representing a 26.8% increase. The annual benefits increased 68.7% with 14 members receiving annual payments of \$233,736 in 1982 and 20 members receiving annual payments of \$394,224 in 1984.

The regular contribution rate for funding the Judges' Retirement System is 44% of each judge's salary. This rate is comprised of 6% from the state, 31% from district court fees and 6% from each judge. In addition, one-fourth of the supreme court fees is contributed to the system. This represents approximately 1% of salary.

The regular contribution rate of 44% is sufficient to amortize the unfunded liability over 150 years. Because the legislated contribution rate is sufficient to amortize the cost over a definite period, the Judges' Retirement System is considered to be an actuarially sound system. However, we recommend that the contribution rate be increased by 5.52% in order to place the system in a stronger financial position.

#### 6. HIGHWAY PATROLMEN'S RETIREMENT SYSTEM

The actuarial valuation as of July 1, 1984 has determined that the percentage of each patrolman's salary required to fund benefits as they accrue in the future is 16.96%. An additional 7.16% is required to amortize the unfunded past service liability over a period of 40 years. The total recommended contribution rate is 24.12%.

The recommended rate of 24.12% represents a decrease of 2.73% over the 1982 rate of 26.85%. A portion of the rate decrease was attributable to a favorable experience in the system. The decrease from the favorable

experience was .38%; the balance of 2.35% was attributable to a change in the actuarial assumptions.

The number of active members declined from 204 in 1982 to 197 in 1984, but the payroll increased from \$4,107,863 in 1982 to \$4,926,094 in 1984. This represented a 19.9% increase in payroll. Annual benefits increased 12.9% with 126 members receiving annual payments of \$730,380 in 1982 and 131 members receiving annual payments of \$824,507 in 1984. During the same period, assets grew by 34.4% to \$11,506,051.

The regular contribution rate for funding the Highway Patrolmen's Retirement System is 23.07% of each active patrolman's salary. This rate is comprised of 16.57% from the state and 6.5% from the member. This amount is sufficient to amortize the unfunded liability over a period of 49.81 years.

The Highway Patrolmen's Retirement System is funded on an actuarially sound basis and no contribution increases are required at this time.

#### 7. FIREFIGHTERS' UNIFIED RETIREMENT SYSTEM

The actuarial valuation as of July 1, 1984 has determined that the percentage of each firefighter's salary required to fund the benefits as they accrue in the future is 23.80%. An additional percentage of 18.97% is required to amortize the unfunded past service liability over a period of 40 years. The total recommended contribution rate is 42.77%.

The recommended rate of 42.77% represents a decrease of .90% over the 1982 recommended rate of 43.67%. This decrease in the required funding was attributable to a change in the actuarial assumptions.

The lower mortality and withdrawal assumptions increased anticipated benefit payments and, therefore, increased the cost of the system. The



most significant increase was created by the cost-of-living assumption change. The system is liable for certain benefit increases granted to members who retire after July 1, 1973. The cost-of-living change significantly increased this liability. This increase was offset by the cost decrease resulting from the change in the investment assumption. The result was a .90% savings to the system as a percentage of salary.

The number of active members declined from 448 in 1982 to 395 in 1984, but the payroll increased from \$7,602,336 in 1982 to \$8,071,909 in 1984. This represented a 6.2% increase in payroll. Annual benefits increased 19.2% with 325 members receiving annual payments of \$2,594,807 in 1982 and 342 members receiving annual payments of \$3,091,776 in 1984. During the same period, assets grew 43.7% to \$15,009,428.

The regular contribution rate for funding the Unified Firefighters' Retirement System is 42% of each active firefighter's salary. This rate is comprised of 18% from the state, 18% from each city, and 6% from each member. This rate is sufficient to amortize the unfunded liability over a period of 42.29 years.

The Firefighters' Unified Retirement System is funded on an actuarially sound basis and no contribution increases are required at this time.





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